

Effectiveness of Schema Therapy and Group Cognitive Therapy on Anxiety in Women with High-Risk Sexual Behavior

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Background and Objective: Due to the effectiveness of psychological interventions on mood and anxiety disorders, the schema therapy interventions and group cognitive therapy were used in this study to reduce anxiety in women with high risk sexual behaviors.

Methods: This was a pilot study using cluster sampling method. The statistical population consisted of 500 women (20-60 years old with diploma degree or higher) with a history of high risk sexual behaviors who had referred to the Shohada Center of Hamedan for HIV test. Concurrently, DASS questionnaire with 21 items and psychiatric interview were performed; 250 of them had symptoms of depression, anxiety and perceived stress and 85 of them had symptoms of anxiety; 45 were randomly selected and were divided into three groups: two intervention groups and one control group. 12 group cognitive therapy sessions and 12 schema therapy sessions were considered; each session was 90 min. At the end of the treatment, all groups were post-tested.

Results: Comparison of the mean difference of the anxiety in three groups of schema therapy, cognitive therapy and control showed that there was a significant difference among these groups. Moreover, there was a significant difference between the mean of anxiety in cognitive therapy group and schema therapy (-2.376, $p = 0.01$).

Conclusion: The results showed that schema therapy is more effective than cognitive therapy on anxiety of the women who referred to Shohada Center of Hamedan.

Keywords: Schema Therapy, Cognitive Therapy, Anxiety, SexualRiskBehavior

Introduction

The third wave of HIV has just begun in Iran and sexual transmission has preceded any other HIV modes of transmission with 21.1% of the cases in Iran [1]. Therefore, two main general objectives of the WHO were 90% reduction in the number of new HIV infections and 50% reduction in infected women deaths by 2016 [2]. The women with high-risk sexual behaviors are one of the affected groups in the world that are mostly threatened by HIV [3, 4]. HIV and other sexually transmitted diseases are caused by behaviors and according to the numerous studies conducted by experts, understanding the HIV- high risk sexual behaviors plays a key role in preventing the spread of AIDS [5-8].

After injection, high-risk sexual behaviors are considered as the major factor that transmits the sexually transmitted diseases and HIV [9]. Results of the studies show that high-risk sexual behaviors are common among the Chinese injecting drug addicts and most of them are vulnerable to infectious disease transmission [10]. It has been proved that the most important high-risk sexual behaviors that adversely affect the HIV-infected patients and the spread of HIV are the following: unprotected sexual relationships, multiple sex partners and drug injection with joint syringe [11].

People with high risk behaviors must be increasingly supported. Although intervention in certain groups cannot prevent the epidemic diseases, implementing the treatment, training plan, and concentrating on people with high-risk behaviors is vital [12]. The high-risk sexual behaviors can be associated with psychiatric disorders and anxiety disorders are one of the most prevalent ones. A national study reported that one out of every four people has diagnostic criterion for at least one anxiety disorder. Women with 30.5% compared to the men with 19.2% are more affected by psychiatric disorders. Generalized phobic anxiety is unclear and unpleasant and often it involves automatic system and is characterized by the symptoms such as headache, sweating, palpitations, chest tightness, and mild abdominal pain. Anxiety warns the people that they are in danger and help them to take action to cope with danger

[13]. Anxiety disorders may have negative effects on individual, social and occupational performance of people; therefore, a number of treatment approaches have been proposed in order to improve and reduce the severity of symptoms associated with it by mental health experts. Psychological interventions based on the behavioral, cognitive, and emotional theories and different viewpoints are one of the most important tools for the mental health experts.

Over the period of recent four decades, at least two basic mutations in theory and treatment of anxiety has occurred, one for the use of drugs to relieve the symptoms of anxiety, and the other for cognitive behavioral therapy [14]. The main pivot of Rational Emotive Behavior Therapy (REBT) proposed by Ellis is one of these theories, stating that people develop emotional and stable reactions and inner speech. This internal phraseology sometimes reflects the unexpressed assumptions or irrational beliefs about the necessities for leading a meaningful life. These kind of treatments aim to remove the self-destructive beliefs by their rational analysis [15]. A study conducted on the effectiveness of group cognitive therapy on anxiety symptoms in men with HIV showed that this intervention reduced the symptoms of anxiety [16]. Nowadays; one of the challenges of cognitive-behavioral therapy is its reduced effectiveness on chronic disorders. On the other hand, the effectiveness of this therapeutic approach on acute disorders such as anxiety disorders is short and associated with recurrence of symptoms [17].

Although from the emergence of this approach, treatment interventions and techniques were focused on durable events, clinical experiences and research evidence showed that the underlying factors should be considered in order to solve the patients who requested treatment, notably for those with a long-standing chronic problems. Yang schema therapy approach is one of the approaches that concentrate on this issue and it is based on the discovery of the origin of transformation and psychological problems and primary maladaptive schema. The primary maladaptive schema are the self-damaging cognitive and emotional patterns formed at the beginning of the evolution of

the mind and repeated during life. Maladaptive schema and solutions through which patients learn cope with others, often underpin the chronic symptoms of anxiety disorders. Change is important in schema therapy because of leading to change in lifestyle [18]. Due to the lack of the studies that, concurrently, deal with the effectiveness of the schema therapy and cognitive therapy on the anxiety of the people with high-risk sexual behaviors, this study tried to consider them.

The results of numerous studies showed that meta-cognitive therapy has been effective on the symptoms of anxiety disorders, including generalized anxiety and obsession [19-22].

On the other hand, the results of some studies on schema therapy show that this treatment approach is effective in improving anxiety symptoms in patients with generalized anxiety disorder [23-25].

This study aimed to compare the effectiveness of schema therapy and group cognitive therapy on anxiety of the women with high risk sexual behaviors.

Methods

This single-blind intervention study was conducted in 2006 on women with high risk sexual behaviors who referred to behavioral health clinics of Hamedan for HIV test. Single-stage cluster sampling method was used. At first, one center (Shohad treatment center) was randomly selected out of five behavioral disorders center of Hamedan. Then 250 patients out of 500 ones, who met the inclusion criteria were selected. Inclusion criteria included sex partner, unprotected sexual experience, 20-60 years old with diploma degree or higher. Then, Depression Anxiety Stress Scales (DASS) was administered to the participants and was completed by them; 85 people who obtained at least 16 were selected and of whom, 45 subjects were divided into three groups, each of 15 (two intervention groups and one control).

Twelve group cognitive therapy sessions were hold for the first intervention group and 12 sessions for second intervention. For each intervention, two sessions of 90 min were hold per week. No loss or absence of the subjects was observed except two cases with

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once absence in the session. They were asked to explain the reason for their absence in individual sessions and the advantages and disadvantages of the participation in the study was again explained; one week after finishing the intervention, all three groups completed the questionnaires again.

DASS was used as the research tool in this study. This scale has three subscales, each of them with seven questions and their final score is obtained by summing up the scores of the items. Each items is scored from zero (It's not true for me) to three (It's true for me). Since it is the short form of main scale (42 items), final score of each subscale should be doubled. Then the severity of the symptoms should be identified using the table related to the questionnaire. Cut-off point obtained for the anxiety was 16 and higher than it. Research scale is reliable and valid and have been approved in Iran and abroad. The reliability and validity of this questionnaires has been investigated in Iran by Samani and Jokar (2007) and retest reliability for depression, anxiety and stress was respectively 0.80, 0.76, 0.70. Cronbach's alpha for depression, anxiety and stress was 0.81, 0.74 and 0.78, respectively (26-28).

In this research, all ethical principles, including satisfaction of all voluntary participants in the study, confidentiality and informing the subjects to get out of the study with no restrictions were observed. Researcher received the Ethics Committee permission for conducting this study from Hamedan University of Medical Sciences. This research was registered in Iranian Registry of Clinical Trials: IRCT. 2012121911782N2

Description of cognitive therapy sessions

First session: introducing, reviewing the structure of the meetings, the laws and the importance of commitment, raising people's problems and providing information to members about stress, relaxation and cognitive logic, receiving the feedback.

Second session: Training and practicing the progressive relaxation. Training the concepts of reality and perception, consciousness and the difference between feelings and thoughts, the assignment, and receiving the feedback.

Third session: reviewing assignments, training the second stage of progressive relaxation and help the members to think about the reasons that make them upset, training the five cognitive distortions, giving assignments and receiving feedback.

Session Four: Reviewing assignments, training the third stage of progressive relaxation, five other cognitive distortions, giving the assignment, receiving feedback.

Fifth session: Reviewing assignments, training the fourth stage of progressive relaxation, discussion about recent emotional experience and playing a role, receiving feedback.

Sixth Session: Reviewing assignments, discussion about recent emotional experience and learned techniques, training the basic cognition, love, success, perfectionism, giving assignment, receiving feedback.

Seventh session: reviewing assignment, discussion about necessities as one of the techniques for identifying fundamental schemas, investigating the role of cognitive distortions in creating and sustaining stress, giving the assignment, receiving feedback.

Eighth Session: reviewing assignments, helping participants to understand their punishment and rewarding methods. These participants should consider an applicable plan to encourage them practice the method that they learnt during these sessions.

Ninth session: reviewing assignments, investigating the solutions for changing the fundamental ineffective beliefs to the beneficial ones with the help of the consultant.

Session ten: participants were encouraged to review their mental states and moods in recent month, identify and seek to reduce them

Session eleven: reviewing assignments, investigating the participants' plans for continuing the results they obtained during treatment.

Session twelve: reviewing assignments, summarizing past meetings by members and the therapist, posttest and giving gifts, discussion about how to return to the treatment, generalizing learning to the real world [29].

Description schema therapy sessions

Sessions (1-2): Creating a reciprocal relationship with collaboration, education, schema therapy approach, obtaining informed consent, providing the research tests, meetings, assessing patient problems, assessing coping styles, classifying the problems using the rules-based structures based on the schema therapy and completing the conceptualization form.

Sessions (3-6): The use of cognitive techniques in order to discredit the dominant schemas of the patients.

Sessions (7-9): using experimental techniques to learn and understand and familiarize the patients with transformational origins of the schema and understanding the maladaptive solutions to satisfy emotional needs.

Sessions (10-12): encouraging authorities to stop using the maladaptive coping styles and practice adaptive coping behaviors to satisfy the basic emotional needs, and forcing the patients to prepare a list of the skills learned in the treatment and prevention of relapse (18).

Data were analyzed using descriptive statistical methods (graphs, mean and standard deviation) and inferential statistics (multivariate analysis of covariance (MANCOVA), post hoc test, Bonferroni alpha and software and SPSS19

Analysis of specific demographic characteristics of the under study population showed that the mean and total standard deviation of the participants was 34.24 ± 9.88 , respectively. Most of them (75.7 %) were 20 to 40 years old. In terms of education level, most of them had diploma degree (86.7%). In terms of marital status, most of them were divorced (51.2%).

Since the assumptions of linear relationship, homogeneity of the variances and homogeneity of slope of the regression line was observed, researcher can use the analysis of covariance (ANCOVA). Based on the results of Table 5, F is calculated statistically significant. By comparison of the schema of anxiety and cognitive therapy groups showed that the level of anxiety in two groups, there is a significant difference. As a result of schema therapy more effective in reducing anxiety in the cognitive therapy group.

Results

As shown in Table 4, calculated F is statistically significant. As a result, schema

Table 1: Demographic characteristics of participants

levels	frequency	percentage	variable	levels
20-30 years old	20	44.5	Agegroups	20-30 years old
30-41 years old	14	31.2		30-41 years old
41-50 years old	8	17.8		41-50 years old
51-60 years old	3	6.7		51-60 years old
diploma	39	86.7	Education level	diploma

Table 2: Mean and standard deviation of women's anxiety level before and after intervention for each group

Group	Pretest Mean±SD	Posttest Mean±SD
Schema therapy	16.73±1.223	11.27±1.387
Cognition therapy	15.87±0.834	13.20±1.521
Control	17.07±1.387	16.07±1.387

Table 3: Mean and modified standard deviation of anxiety in women before the interventio.

Group	N	M	SD Error
Schema therapy	15	11.191	0.347
Cognition therapy	15	13.546	0.371
Control	15	15.796	0.369

Table 4: Analysis of covariance (ANCOVA) the effectiveness of schema therapy, cognitive therapy on anxiety in women after intervention

variable	ss	df	ms	F	Sig	η^2 effect size
Inter group anxiety	0.0005	159.070	2	79.535	45.761	0.0005
Intra group anxiety	71.260	41	1.738			

Table 5: Analysis of covariance (ANCOVA) the effectiveness of schema therapy, group cognitive therapy on anxiety in women

variable	ss	df	md	F	sig	MD
Inter group anxiety	38.558	1	38.558	22.185	0.01	-2.376
Intra group anxiety	71.260	41	1.738			

Based on the results of Table 5, calculated F is statistically significant. Comparison of the mean difference between anxiety of two groups of the schema therapy of and cognitive therapy showed that there is a significant

difference between the mean of anxiety in two groups. As a result, schema therapy was more effectiveness in reducing anxiety compared to the group cognitive therapy.

Discussion

This study aimed to compare the schema therapy and cognitive therapy on the anxiety of the women with high risk sexual behaviors. Due to the lack of the studies that concurrently deal with the effectiveness of the schema therapy and cognitive therapy on the anxiety of the people with high risk sexual behaviors, this study considered the parallel and consistent studies, too.

It seems that schema therapy benefits from the applied techniques and resources compared to the cognition therapy. This approach is a multidimensional treatment model that can include all factors affecting the change of the behaviors and at the same time, affects the intra personal and interpersonal aspects. It also can cover the emotional, cognitive and behavioral aspects. Consistent studies show that schema therapy is an efficient method for treating the patients with anxiety disorders and personality disorders [30, 33]. Capron et al. [24] also conducted a study on effectiveness of schema therapy and concluded that it can reduce anxiety sensitivity [24]. Cognitive approach focuses on cognitive aspects and dysfunctional beliefs and this approach aims to reduce the negative belief about themselves, the world and others. Different studies indicated that schema therapy significantly reduces symptoms of anxiety. However, there is no significant difference between the two schema therapy and cognitive therapy in reducing anxiety. These studies are inconsistent with this study [23, 25, 31, and 32].

Conclusion

It can be argued that one of the reasons for efficiency of the schema therapy compared to the cognition therapy is investigating the hot cognitions with positive and negative emotions that are of great importance in schema therapy. Inefficient cognition should be first considered in schema therapy, however, treatment is not finished, since many inefficient cognitions of the patients have positive and negative emotional loads and patients have been informed only about their beliefs but they have not basically changed them. Next stages in schema therapy approach that may be the most sensitive ones and the most distinguished aspects compared

to the cognition approach is experimental treatment that investigates the emotional beliefs and is a kind of modified emotional experience. Also, emphasizing on the behavioral techniques such as assertiveness training, anger control and communication skills training in the schema therapy approach increase its efficiency, too. Ultimately, another key and effective factor in the treatments that schema therapy is a part of it, is treatment relationship as one of the major factors for measurement and change in the approach. However, in cognition therapy approach, treatment relationship is important however, it is not considered as the major factor of the change. In general, factors affecting schema therapy compared with cognitive therapy include the emphasis on emotions, simultaneous emphasis on the present and past time, and a more active role of the therapist during the schema therapy, creating the modified emotional experience, treatment relationship as the element for measurement and change

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